

SWPPP Public Education Preliminary Planning Tool (3/03)

Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Minimum Control Measure #1

Public education and outreach on storm water impacts

Educational audiences and goals

Audience	Educational goals
General public and K-12 Students	<p>Aware: Storm drains lead to water bodies.</p> <p>Aware: Sources of runoff pollution.</p> <p>Aware: Impacts of polluted runoff on water bodies and the life within them.</p> <p>Understand: Who to contact when a source of runoff pollution is observed.</p> <p>Action: Cease using storm drains for disposing anything besides storm water runoff.</p> <p>Action: Report substantial sources of runoff pollution to the MS4</p>
Property managers (residents, yard care companies, groundskeepers, landscapers)	<p>Aware: Soil, tree leaves, grass clippings, fertilizer, and pesticides, are all sources of runoff pollution.</p> <p>Understand: Proper way of managing soil erosion, tree leaves, grass clippings, fertilizer, pesticides and pet waste to avoid pollution.</p> <p>Action: Tree leaves and grass clippings are swept / raked off of paved areas.</p> <p>Action: Sources of eroding soil are stabilized.</p> <p>Action: Phosphorus fertilizers are not used unnecessarily, and all fertilizer is used correctly, including the use of soil testing.</p> <p>Action: Pesticides are managed correctly.</p>
Governmental officials and boards	<p>Aware: Sources of runoff pollution need to be controlled to achieve water quality goals.</p> <p>Understand: Land use decisions made by the MS4 impact the volume, rate, and quality of storm water runoff.</p> <p>Action: Adopt a system of land use decision-making that includes reducing storm water impacts as a criterion.</p> <p>Action: Support MS4 staff in efforts to improve storm water quality.</p>
Media	<p>Aware: Storm water management will be an ever-increasing issue in urban areas.</p> <p>Aware: There are things that individuals, businesses, and government can do to prevent storm water pollution.</p> <p>Understand: Responsible parties in storm water management.</p> <p>Understand: Federal and state mandate on cities for improved storm water management.</p> <p>Action: Accurate and engaging coverage of storm water management issue.</p> <p>Action: Provide information to the public needed by them to take positive action.</p>

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MCM 1: Public education and outreach

Educational activities directed to specific audiences

	Measurable Goals	Schedule	Cost
General public			
1. Brochure, pamphlet, direct mail, bill stuffer, and/or handout.	# pieces, topics covered	Q3-03	\$3,000
2. Presentation(s) to interested group(s), as requested.	# of presentations, topics covered, attendance	May-03 to Feb-04	Staff time
Property managers (residents, yard care companies, groundskeepers, landscapers)			
1. Brochure, pamphlet, direct mail, bill stuffer, and/or handout.	# pieces, topics covered	Q3-03	\$500
K-12 students and teachers			
1. Meet with ISD #535 science teachers interested in developing storm water curricula.	# of meetings, attendance	Q4-04	Staff time
Government officials and boards			
1. Presentation(s) to City Council and/or advisory board(s), as needed.	# of presentations, topics covered, attendance	Q3-03 & Q4-04	Staff time
Media			
1. General press release(s).	# of articles; topics covered, distribution #s	Q3-03	Staff time
MS4 Staff			
1. Hold discussions with local water resources educators to discuss the delivery of storm water educational BMPs, inventory local existing programs, develop educational priorities and implementation opportunities for consideration during the development of the 2004-2008 educational plan; develop 2004-2008 plan; develop agreements with willing partners.	# of meeting invitations; attendance; program inventory; priority list; # of agreements; 2004-2008 Ed. plan	Q4-03	Staff time

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Minimum Control Measure #2

Public participation and involvement

Educational audiences and goals

Audience	Educational goals
General public, K-12 students and teachers, and elected and appointed officials	<p>Aware: The MS4 has a SWPPP.</p> <p>Aware: Public input into the program is encouraged.</p> <p>Aware: The public can prevent storm water pollution.</p> <p>Understand: Process for providing input into the SWPPP.</p> <p>Understand: How the public can act to prevent storm water pollution.</p> <p>Action: Interested and impacted members of the public provide input into SWPPP.</p> <p>Action: Public take positive actions to prevent water pollution.</p>
MS4 staff	<p>Aware: The MS4 has a SWPPP that relies on effective implementation of several municipal operations.</p> <p>Aware: Staff input into the SWPPP is encouraged.</p> <p>Understand: Which operations are related to the SWPPP.</p> <p>Understand: Process for providing input into SWPPP.</p> <p>Understand: How staff can be leaders in storm water pollution prevention.</p> <p>Action: Provide input into SWPPP.</p> <p>Action: Facilitate the public in preventing storm water pollution.</p> <p>Action: Serve as role models by individually taking actions to prevent water pollution at their homes and at work.</p>
Business and Industry	<p>Aware: The MS4 has a Storm Water Pollution Prevention Program.</p> <p>Aware: Public input into the SWPPP is encouraged.</p> <p>Aware: There is a role for the businesses and industries in preventing storm water pollution.</p> <p>Understand: Businesses and industries can facilitate implementation of the SWPPP.</p> <p>Understand: Process for providing input into the SWPPP</p> <p>Understand: How to assist in storm water pollution prevention.</p> <p>Action: Provide input into SWPPP.</p> <p>Action: Take actions to prevent storm water pollution.</p>

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

MCM 2: Public Participation and Involvement

Public participation activities directed to specific audiences	Measurable Goals	Schedule	Cost
General public, K-12 students and teachers, and elected and appointed officials			
1. Develop an interactive storm water web site with posting of: the SWPPP, notices of public participation events, opportunities for public input, and a communication link.	URL address	Q3-03; maintenance thereafter	Staff time
2. Host an annual public meeting to review the SWPPP and to receive input.	# of attendees; Summary of input provided	Q1-04	Staff time
3. Participate in or assist in the development of a Children's Water Festival, if requested.	# of attendees	Q1-04	Staff time
4. Participate in ISD #535 "Summer of Service" program for storm drain marking, hanging door notices, and stream monitoring.	# of participants, # of drains marked; # of door hangers distributed	Q2-03 & Q3-03	Staff time; \$600 for markers
5. Participate in RCTC Service Learning "Adopt A River" Clean Up Day, if requested.	# of participants; # of garbage collected	Q1-04	Staff time
6. Promote local participation in MPCA Citizen Stream Monitoring Program.	Letter of introduction, promotional brochure; # of participants; annual data tabulation	Q1-04	Staff time
MS4 staff			
1. Training to staff responsible for implementing portions of the SWPPP to promote water quality protective operations.	# of staff trained, topics covered	Q3-03 to Q1-04	Staff time
2. Training to City staff to learn how to: identify and report storm water pollution, to implement individual actions to protect water quality at home and at work, and to provide input into the SWPPP.	# of staff trained, topics covered	Q3-03 to Q1-04	Staff time
3. Establish database of volunteers and partners interested in assisting SWPPP efforts.	1 database file	Initial Q4-03, ongoing thereafter	Staff time
4. Establish recognition program for volunteers and partners who assist with SWPPP implementation.	Recognition Plan	Q1-04	\$100

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Minimum Control Measure #3

Illicit discharge detection and elimination

Educational audiences and goals

Audience	Educational goals
General public	<p>Aware: Only storm water and permitted non-storm water discharges should enter water bodies; anything else is an illicit discharge.</p> <p>Aware: Most outfalls to water bodies should be dry during dry weather periods.</p> <p>Understand: Liquid discharging from outfalls during dry weather or discolored discharges may be indications of illicit discharges.</p> <p>Action: Report the locations of suspected illicit discharges and illegal dumping activities to the proper authorities.</p>
Residents	<p>Aware: The City has a Water Quality Protection Program to help older subdivisions with failing wells and septic systems connect to City water and sanitary sewers.</p> <p>Aware: Materials dumped into storm drains flow directly to water bodies without treatment.</p> <p>Understand: Water quality impacts of failing septic systems.</p> <p>Understand: Untreated wastes pollute surface water.</p> <p>Action: Petition for City sanitary and sewer systems when a majority of subdivision residents desire to replace failing septic systems.</p> <p>Action: Refrain from dumping materials down storm drains.</p>
MS4 staff	<p>Aware: Only storm water and permitted non-storm water discharges should enter water bodies; anything else is an illicit discharge.</p> <p>Aware: Most Outfalls to water bodies should be dry during dry weather periods.</p> <p>Understand: Liquid discharging from outfalls during dry weather or discolored discharges may be indications of illicit discharges.</p> <p>Action: Report the locations of suspected illicit discharges and illegal dumping activities to the proper authorities.</p> <p>Action: When responding to complaints of suspected illicit discharges or illegal dumping, educate the business or homeowner about the problems associated with improper storm sewer connections and/or illegal dumping.</p>

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Restaurants, other commercial businesses, industries, and property managers	<p>Aware: Storm drains lead to water bodies.</p> <p>Aware: Impact of untreated wastewater on water bodies and the life within them.</p> <p>Aware: What is hazardous waste and why is it especially harmful.</p> <p>Aware: Materials stored outdoors with inadequate cover can add pollutants to storm water.</p> <p>Understand: Wastewater should be disposed in sanitary sewers only.</p> <p>Understand: Hazardous waste should be taken to approved collection sites.</p> <p>Understand: Outdoor paved areas should be swept – not washed – clean.</p> <p>Understand: Equipment and vehicles should not be cleaned on outside paved areas.</p> <p>Understand: Materials prone to runoff and leaching should be stored indoors or outdoors under cover.</p> <p>Action: Wash vehicles inside areas with sanitary sewer connections or on a grassy area.</p> <p>Action: Cease disposing of wastewater and hazardous waste down storm sewers.</p> <p>Action: Switch from washing paved areas to sweeping them.</p> <p>Action: Cease washing equipment and vehicles on outside paved areas.</p> <p>Action: Store supplies indoors or under cover.</p>
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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

MCM 3: Illicit discharge detection and elimination

Educational activities directed to specific audiences	Measurable Goals	Schedule	Cost
General Public			
1. Press release disclosing illicit discharge and illegal dumping problems and solutions.	# of articles; topics covered, distribution #s	Q4-03	Staff time
2. Identify contact number for reporting illicit discharges.	Contact # placed in publications & on web site; call records	Start Q3-03	Staff time
Residents			
1. Public meetings to subdivisions petitioning for City water and sanitary sewer services to describe the benefits and costs of the Water Quality Protection Program (as requested).	#of meetings, attendance	Q2-03 to Q1-04	Staff time
2. Brochure and web site posting on residential sources of illicit discharge problems.	# of brochures distributed; web site posting	Q1-04	Staff time
MS4 Staff			
1. Training to describe illicit discharges and illegal dumping problems, and to detect, report, and investigate them.	# of attendees	Q1-04	Staff time
2. Develop a hierarchy of actions for addressing reported illicit discharges.	Illicit Discharge Response Plan	Q1-04	Staff time
Restaurants, other commercial businesses, industries, and property managers			
1. Brochure and web site posting cross-connections, proper material storage, illicit discharges and illegal dumping problems.	Brochure; web site posting	Q1-04	Staff time
2. Share brochure during inspection visits by Building and Safety or Fire Department staff, where warranted.	# of brochures distributed; referrals to RPW of problems encountered	Start Q1-04	Staff time

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Minimum Control Measure #4

Construction site storm water runoff control

Educational audiences and goals

Audience	Educational goals
General public	<p>Aware: Exposed soil will erode, causing water pollution.</p> <p>Aware: The impacts of sediment loading on water bodies and the life within them.</p> <p>Aware: Construction sites need to minimize potential for erosion and keep eroded soil on site.</p> <p>Understand: How to contact the City when uncontrolled construction site soil erosion is observed.</p> <p>Action: Report erosion control problems to proper authorities.</p>
Property managers (residents, groundskeepers, landscapers)	<p>Aware: Exposed soil will erode, causing water pollution.</p> <p>Aware: The impacts of sediment loading on water bodies and the life within them.</p> <p>Aware: Construction sites need to minimize potential for erosion and keep eroded soil on site.</p> <p>Understand: How to prevent erosion on their property.</p> <p>Action: Residents and property managers will control sources of soil erosion on their property.</p>
MS4 staff	<p>Aware: Exposed soil will erode, causing water pollution.</p> <p>Aware: The impacts of sediment loading on water bodies and the life within them.</p> <p>Aware: Construction sites need to minimize potential for erosion and keep eroded soil on site.</p> <p>Understand: Erosion control requirements of the SWPPP and the MPCA NPDES Construction Permit program.</p> <p>Understand: How to properly interpret a grading and drainage plan.</p> <p>Understand: Effective selection, placement, installation, and maintenance of erosion control BMPs throughout all construction stages.</p> <p>Understand: How to maintain proper inspection records and follow enforcement procedures.</p> <p>Action: Effective implementation of construction site erosion control plans on City projects.</p> <p>Action: Inspection and enforce construction requirements on non-City projects, maintaining accurate records.</p>

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Architects, engineers, developers, builders, and contractors	<p>Aware: Exposed soil will erode, causing water pollution.</p> <p>Aware: The impacts of sediment loading on water bodies and the life within them.</p> <p>Aware: Construction sites need to minimize potential for erosion and keep eroded soil on site.</p> <p>Understand: Erosion control requirements of the SWPPP and the MPCA NPDES Construction Permit program.</p> <p>Understand: How to prepare effective grading and drainage plans.</p> <p>Understand: Effective selection, placement, installation, and maintenance of erosion control BMPs throughout all construction stages.</p> <p>Action: Effective implementation of construction site erosion control plans.</p> <p>Action: Conduct routine and post-storm event site inspections to insure that BMPs are maintained and maintain proper inspection records.</p> <p>Action: Provide oversight of construction activity to insure that erosion control plans are followed and modified when needed.</p>
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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

MCM 4: Construction Site Storm Water Runoff Control

Educational activities directed to specific audiences	Measurable Goals	Schedule	Cost
General public			
1. Brochure, pamphlet, direct mail, bill stuffer, or handout.	# distributed, topics covered	Q1-04	\$0.10 to \$1.00 each
2. Identify contact number for reporting erosion control complaints.	Contact # placed in publications & on web site; call records	Start Q3-03	Staff time
Property managers (residents, groundskeepers, landscapers)			
1. Brochure, pamphlet, direct mail, bill stuffer, or handout.	# distributed, topics covered	Q1-04	\$0.10 to \$1.00 each
2. Presentations to interested groups, as requested.	# of presentations, topics covered, attendance	May-03 to Feb-04	Staff time
MS4 staff			
1. Staff training on grading and drainage plan development and review, effective erosion control planning, construction site inspections, and enforcement and reporting procedures.	# staff trained, topics covered	Q1-04	Staff time
Architects, engineers, developers, builders, and contractors			
1. Brochure, pamphlet, direct mail, bill stuffer, or handout.	# distributed, topics covered	Q1-04	\$0.10 to \$1.00 each
2. Presentations to interested groups, as requested.	# of presentations, topics covered, attendance	May-03 to Feb-04	Staff time
3. Information shared during regular plan review and site inspection contacts.	# of approved plans; #of site inspections	May 03 to Feb 04	Staff time

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Minimum Control Measure #5

Post-construction storm water management

Educational audiences and goals

Audience	Educational goals
General public and residents	<p>Aware: Residents can adopt practices to increase storm water infiltration.</p> <p>Understand: Who to contact for assistance with selecting BMPs to manage storm water.</p> <p>Action: Install storm water management practices on individual lots.</p>
MS4 staff	<p>Aware: Urban development increases storm water runoff volumes, rates and pollutant loads, thereby impacting receiving waters.</p> <p>Aware: Thoughtful site designs and BMP selections can be incorporated before a development is constructed to reduce the impact of storm water runoff.</p> <p>Understand: Good site design, BMP selection, and long-term maintenance need to be integrated to reduce storm water impacts.</p> <p>Action: Make post-construction storm water management a criterion for approval of General Development Plans, Preliminary Plats, Final Plats, and Grading and Drainage Plans.</p>
Architects, engineers, developers, builders, and contractors	<p>Aware: Urban development increases storm water runoff volumes, rates and pollutant loads, thereby impacting receiving waters.</p> <p>Aware: Thoughtful site designs and BMP selections can be incorporated before a development is constructed to reduce the impact of storm water runoff.</p> <p>Understand: Good site design, BMP selection, and long-term maintenance need to be integrated to reduce storm water impacts.</p> <p>Action: Integrate site design, BMPs and long-term maintenance needs into development plan proposals.</p> <p>Action: Prepare effective construction.</p> <p>Action: Insure proper installation, construction, and maintenance of selected BMPs.</p> <p>Action: Maintain approved grades throughout all construction phases and correct conditions that lead to poor storm water management or inadequate lot drainage.</p> <p>Action: Make suggestions to improve storm water management on-site when opportunities are observed.</p>

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

MCM 5: Post-construction storm water management

Educational activities directed to specific audiences

	Measurable Goals	Schedule	Cost
General public and residents			
1. Brochure, pamphlet, direct mail, bill stuffer, or handout.	# distributed, topics covered	Q1-04	\$0.10 to \$1.00 each
2. Identify contact number for reporting erosion control complaints.	Contact # placed in publications & on web site; call records	Start Q3-03	Staff time
MS4 staff			
1. Staff training on post-construction storm water management.	# staff trained	Q1-04	Staff time
2. Review Grading Plan Checklist to determine if changes are needed to further foster effective storm water management.	Revised checklist	Q1-04	Staff time
Architects, engineers, developers, builders, and contractors			
1. Brochure, pamphlet, direct mail, bill stuffer, or handout.	# distributed, topics covered	Q1-04	\$0.10 to \$1.00 each
2. Presentations to interested group, as requested.	# of presentations, topics covered, attendance	May-03 to Feb-04	Staff time
3. Information shared as part of project correspondence, meetings and/or site inspections.	# of approved plans; #of site inspections	May 03 to Feb 04	Staff time

SWPPP Public Education Preliminary Planning Tool (3/03)

Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

Minimum Control Measure #6

Municipal pollution prevention / good housekeeping

Educational audiences and goals

Audience	Educational goals
MS4 grounds maintenance staff	<p>Aware: Soil, tree leaves, grass clippings, fertilizer, pesticides, and pet waste are all sources of runoff pollution.</p> <p>Understand: Proper erosion control and management of tree leaves, grass clippings, fertilizer, pesticides, and pet waste will avoid pollution.</p> <p>Understand: Landscaping options exist that reduce the need for fertilizer and pesticides and increase storm water infiltration.</p> <p>Understand: Proper management of runoff from roofs and paved areas will minimize the volume of storm water runoff.</p> <p>Action: Stabilize sources of eroding soil.</p> <p>Action: Keep leaves and grass clippings off paved surfaces.</p> <p>Action: Don't over apply phosphorus fertilizers. Use fertilizer is correctly, including the use of soil testing.</p> <p>Action: Use pesticides according to manufacturers' directions.</p> <p>Action: Direct runoff to vegetated areas, where possible.</p> <p>Action: Establish low-maintenance landscapes.</p>
MS4 vehicle and equipment maintenance staff	<p>Aware: Dirt, salt, and oil from washed vehicles are pollutant sources.</p> <p>Aware: Wastewater from vehicles washed outside goes to water bodies via storm sewers systems without treatment.</p> <p>Understand: Proper locations for washing vehicles and equipment that avoid polluted storm water runoff.</p> <p>Action: Adopt a system of vehicle and equipment washing that prevents wastewater from entering storm sewer systems.</p>

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, and cost)

MS4 building maintenance staff	<p>Aware: Runoff from roofs, driveways and parking areas can increase storm water volumes, rates, and pollutant loads.</p> <p>Aware: Waste and wastewater should never be placed in storm sewers. Hazardous waste has special handling requirements.</p> <p>Aware: Trash bins and materials stored outdoors can produce polluted runoff if not properly managed.</p> <p>Aware: Eroding soil is a source of water pollution.</p> <p>Understand: Methods for managing roof, drive, and parking area runoff that increase storm water infiltration and filtering.</p> <p>Understand: Proper disposal of waste and wastewater; especially hazardous waste.</p> <p>Understand: Proper methods for placing waste bins and storing materials outside.</p> <p>Understand: Soil erosion control methods.</p> <p>Action: Runoff from new and existing MS4 facilities is routed to maximize storm water infiltration and filtering.</p> <p>Action: Cease using storm sewers for disposing of waste and wastewater.</p> <p>Action: Store trash and materials so that they do not produce polluted runoff.</p> <p>Action: Control soil erosion and keep eroded soil on-site.</p>
MS4 street maintenance staff	<p>Aware: Road salt and sand is a source of water pollution.</p> <p>Aware: Eroded soil is a source of water pollution.</p> <p>Aware: Effectiveness of street sweeping depends on schedule and equipment.</p> <p>Understand: Methods of reducing salt and sand use.</p> <p>Understand: Methods of controlling soil erosion.</p> <p>Understand: Methods for effective street sweeping.</p> <p>Action: Reduction in salt use and safe salt storage.</p> <p>Action: Control soil erosion and keep eroded soil on site.</p> <p>Action: Evaluate street sweeping operations to determine if efficiency improvements are economically feasible.</p>
MS4 fire protection and emergency response staff	<p>Aware: Storm sewers lead to bodies of water.</p> <p>Understand: Effective spill control methods.</p> <p>Understand: Methods for hydrant flushing that minimize water quality impacts.</p> <p>Understand: Methods for managing fire scene runoff that minimizes water quality impacts.</p> <p>Action: Effective spill control.</p> <p>Action: Evaluate hydrant flushing alternatives to determine if feasible options are available to minimize water quality impacts.</p> <p>Action: Evaluate techniques to control fire scene runoff to minimize water quality impacts.</p>

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Potential educational goals and BMPs (by target audience with measurable goals, schedule, & cost)

MCM 6: Municipal pollution prevention / good housekeeping

Educational activities directed to specific audiences

	Measurable Goals	Schedule	Cost
MS4 grounds maintenance staff			
1. Staff training to discuss operations related to storm water management.	# staff trained, topics covered	May 03 to Feb 04	Staff time
2. Audit of operations for water quality impacts.	# of audits conducted; recommendations	May 03 to Feb 04	Staff time
MS4 vehicle and equipment maintenance			
1. Staff training to discuss operations related to storm water management.	# staff trained, topics covered	May 03 to Feb 04	Staff time
2. Audit of operations for water quality impacts.	# of audits conducted; recommendations	May 03 to Feb 04	Staff time
MS4 building design and maintenance staff			
1. Staff training to discuss operations related to storm water management.	# staff trained, topics covered	May 03 to Feb 04	Staff time
2. Audit of operations for water quality impacts.	# of audits conducted; recommendations	May 03 to Feb 04	Staff time
MS4 street maintenance staff			
1. Staff training to discuss operations related to storm water management.	# staff trained, topics covered	May 03 to Feb 04	Staff time
MS4 fire protection and emergency response staff			
1. Staff training to discuss operations related to storm water management.	# staff trained, topics covered	May 03 to Feb 04	Staff time